

Beamline 32-ID / COM-CAT

Scientific focus: Materials characterization

Scientific programs: Analytical materials characterization and capability for commercial customers

Optics & Optical Performance

- L5-90 standard component primary aperture
- Kohzu HLD-3 monochromator
- horizontally focusing mirror
Rh, Pt coating stripes

Experiment Stations

32-ID-A

- white beam first optics enclosure

32-ID-B

- white beam station
- monochromatic experiments
- spectroscopy
- crystallography/scattering
- powder diffraction

Detectors

- Lytle detector
- multi-element energy dispersive detector
- ionization chambers
- scintillation counters/multiple array
- CCD area detector

Beamline Controls and Data Acquisition

- Linux PC running SPEC

Beamline Support Equipment/Facilities

- 2-circle diffractometer; spectroscopy instruments
- crystallography station

Insertion Device Source Characteristics (nominal)

source	Undulator A
period	3.30 cm
length	2.47 m
effective K_{\max} (at minimum gap = 10.5 mm)	2.78
energy range 1st harmonic	2.9 - 13.0 keV
energy range 1st - 5th harmonics	2.9 - 45.0 keV
on-axis peak brilliance at 6.5 keV	9.6×10^{18} ph/sec/mrad ² /mm ² /0.1% bw
source size at 8.0 keV \sum_x \sum_y	359 μm 21 μm
source divergence at 8.0 keV $\sum_{x'}$ $\sum_{y'}$	24 μrad 6.9 μrad